P-3 Orion 04/19/18

Aircraft: P-3 Orion - WFF (See full schedule)
Flight Number: 2018 OIB Arctic -Science #11
Payload Configuration: 2018 OIB Arctic
Nav Data Collected: No
Total Flight Time: 7.7 hours
Submitted by: Janet Letchworth on 04/23/18
Flight Segments:

From:	BGTL	**To:**	BGTL
Start:	04/19/18 10:50 Z	**Finish:**	04/19/18 18:31 Z
Flight Time:	7.7 hours		
Log Number:	18P008	**PI:**	Nathan Kurtz
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Comments:	This was a baseline land ice mission along Northwest Coastal A and the last flight out of Thule for the campaign.		

Flight Hour Summary:

	18P008
Flight Hours Approved in SOFRS	201.2
Total Used	190.4
Total Remaining	10.8

18P008 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
03/13/18	2018 OIB Arctic - Airworthiness Test Flight	Other	0.8	0.8	200.4	
03/14/18	2018 OIB Arctic -Project Test Flight - Laser	Other	2.6	3.4	197.8	
03/15/18	2018 OIB Arctic -Project Test Flight - Radar	Other	5.7	9.1	192.1	
03/18/18	2018 OIB Arctic -delta ATF	Other	0.8	9.9	191.3	
03/20/18	2018 OIB Arctic -Transit to Thule	Transit	7.9	17.8	183.4	
03/22/18	2018 OIB Arctic - Science #1	Science	7.8	25.6	175.6	
04/03/18	2018 OIB Arctic - Science #2	Science	7.9	33.5	167.7	
04/04/18	2018 OIB Arctic - Science #3	Science	8.1	41.6	159.6	
04/05/18	2018 OIB Arctic - Science #4	Science	8	49.6	151.6	
04/06/18	2018 OIB Arctic - Science #5	Science	8.8	58.4	142.8	
04/07/18 - 04/08/18	2018 OIB Arctic - Science #6	Science	8.1	66.5	134.7	
04/08/18 - 04/09/18	2018 OIB Arctic - Science #7	Science	8.3	74.8	126.4	
04/14/18 - 04/15/18	2018 OIB Arctic - Science #8	Science	7.7	82.5	118.7	
04/16/18	2018 OIB Arctic - Science #9	Science	8.2	90.7	110.5	

04/18/18	2018 OIB Arctic - Science #10	Science	8	98.7	102.5
04/19/18	2018 OIB Arctic - Science #11	Science	7.7	106.4	94.8
04/20/18	2018 OIB Arctic -Transit to Kanger	Transit	4.2	110.6	90.6
04/21/18	2018 OIB Arctic - Science #12	Science	8.1	118.7	82.5
04/22/18	2018 OIB Arctic - Science #13	Science	6.5	125.2	76
04/23/18	2018 OIB Arctic - Science #14	Science	8.2	133.4	67.8
04/25/18	2018 OIB Arctic - Science #15	Science	7.7	141.1	60.1
04/26/18	2018 OIB Arctic - Science #16	Science	8.8	149.9	51.3
04/27/18	2018 OIB Arctic - Science #17	Science	8	157.9	43.3
04/29/18	2018 OIB Arctic - Science #18	Science	8.3	166.2	35
04/30/18	2018 OIB Arctic - Science #19	Science	9.3	175.5	25.7
05/01/18	2018 OIB Arctic - Science #20	Science	7.4	182.9	18.3
05/03/18	2018 OIB Arctic -Return Transit Leg #1	Transit	6.4	189.3	11.9
05/03/18	2018 OIB Arctic -Return Transit Leg #2	Transit	0.6	189.9	11.3
05/03/18	2018 OIB Arctic -Return Transit Leg #3	Transit	0.5	190.4	10.8

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Related Science Report:

OIB - P-3 Orion 04/19/18 Science Report

Mission: OIB
Mission Summary:

Mission: Northwest Coastal A
Priority: Baseline

This newer mission was created from the 2010-2012 Northwest Coastal suite of missions by sampling individual coast-parallel lines from those flights to form a grid spaced at 30-35 km from the coast to near the 2000-m contour line. This is one of three missions designed in this way, which together form a 10 km grid in the area. The others are Northwest Coastal B and C. We also add two additional bedrock-mapping lines in the Tracy/Heilprin catchment. This flight was assigned a baseline priority for 2016 because it continues an intra-annual time series with the spring and fall 2015 campaigns along these lines.

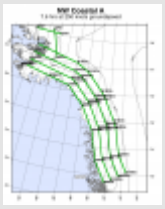
A strong and consistent bluebird forecast for this baseline mission made for an easy decision this morning. On the first coastal track, numerous calving fronts were observed along with polar bear tracks. Two airmen from the Thule AB finance office joined us on the flight. All instruments performed well, and expected turbulence was mild.
Attached images:

1. Map of today's mission (John Sonntag / NASA)

2. Heavily crevassed terrain (Joe MacGregor / NASA)
3. Basal ice in an iceberg (Joe MacGregor / NASA)
4. Island trending back toward a cleft in the present ice terminus (Joe MacGregor / NASA)
5. Shadow approaching iceberg (Joe MacGregor / NASA)
6. Dramatic divide between calving behavior across a narrow ice ridge (Joe MacGregor / NASA)
7. Large iceberg mosh pit (Joe MacGregor / NASA)

Images:

Map of today's mission



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Heavily crevassed terrain

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Basal ice in an iceberg

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Submitted by: Joseph MacGregor on 04/24/18

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